

**IN THE CLAIMS**

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made. Please amend the claims as follows:

1. **(Currently Amended)** A method for authenticated access to multicast traffic, comprising:

receiving an Internet group management protocol request at an access network router operable to authenticate a plurality of requests received from a plurality of customer premise systems, the received request identifying a user requesting to join an IP multicast channel, the IP multicast channel selected from a bundle of IP multicast channels offered for receipt by the user as a multicast package on a subscription basis;

authenticating access privileges of the user to the multicast channel, wherein authenticating access privileges of the user comprises:

determining whether the user is logged in to a service provider providing a service including the multicast channel;

determining whether the user is logged in to the service including the multicast channel; and

successfully authenticating access privileges of the user to the multicast channel in response to at least the user logged in to the service provider and the service;  
and

disallowing the request in response to at least an unsuccessful authentication.

2. **(Original)** The method of Claim 1, authenticating access privileges of the user comprising:

determining whether the user has access privileges to the multicast channel based on previously provisioned information for the user; and

unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not having access privileges to the multicast channel.

3. **(Cancelled)**

4. **(Original)** The method of Claim 1, further comprising allowing the request in response to at least successful authentication.

5. **(Original)** The method of Claim 1, wherein the multicast channel comprises at least one of video, audio, data and combinational content.

6. **(Original)** The method of Claim 1, further comprising:  
prior to receiving the request, provisioning the user's access privileges in an authentication, authorization, and accounting (AAA) server; and  
accessing the AAA server to authenticate access privileges of the user to the multicast channel.

7. **(Original)** The method of Claim 6, wherein the AAA server comprises a remote authentication dial-in user service (RADIUS) server.

8. **(Original)** The method of Claim 1, wherein the multicast channel comprises an Internet protocol (IP) multicast channel and the request includes an IP address of the user device, further comprising determining the user based on the IP address of the device.

9. **(Original)** The method of Claim 1, authenticating access privileges of the user comprising:

determining whether the multicast channel comprises a public multicast channel; and  
successfully authenticating access privileges of the user to the multicast channel in response to at least the multicast channel comprising the public multicast channel.

10. **(Original)** The method of Claim 1, authenticating access privileges of the user comprising:

determining whether the user is logged in to a service provider providing the multicast channel; and

unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not logged in to the service provider.

11. **(Original)** The method of Claim 1, authenticating access privileges of the user comprising:

determining whether the user is logged in to a service including the multicast channel; and

unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not logged in to the service including the multicast channel.

12. **(Canceled)**

13. **(Original)** The method of Claim 1, wherein the request is a subscriber join request.

14. **(Original)** The method of Claim 1, authenticating access privileges of the user comprising:

determining whether the multicast channel is a controlled access multicast channel; and

authenticating access privileges of the user to the multicast channel in response to at least the multicast channel comprising the controlled access multicast channel.

15. **(Original)** The method of Claim 1, further comprising:  
determining if authentication is enabled at an access router receiving the request;  
authenticating access privileges of the user to the multicast channel in response to at least determining that authentication is enabled; and  
allowing the request in response to at least determining authentication is not enabled.

16. **(Currently Amended)** A system for authenticated access to multicast traffic, comprising:

means for receiving an Internet group management protocol request at an access network router operable to authenticate a plurality of requests received from a plurality of customer premise systems, the received request identifying a user requesting to join an IP multicast channel, the IP multicast channel selected from a bundle of IP multicast channels offered for receipt by the user as a multicast package on a subscription basis;

means for authenticating access privileges of the user to the multicast channel,  
**wherein the means for authenticating access privileges of the user comprises:**

**means for determining whether the user is logged in to a service provider providing a service including the multicast channel;**

**means for determining whether the user is logged in to the service including the multicast channel; and**

**means for successfully authenticating access privileges of the user to the multicast channel in response to at least the user logged in to the service provider and the service; and**

means for disallowing the request in response to at least an unsuccessful authentication.

17. **(Original)** A system of Claim 16, the means for authenticating access privileges of the user comprising:

means for determining whether the user has access privileges to the multicast channel based on previously provisioned information for the user; and

means for unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not having access privileges to the multicast channel.

18. **(Cancelled)**

19. **(Original)** A system of Claim 16, further comprising means for allowing the request in response to at least successful authentication.

20. **(Original)** A system of Claim 16, wherein the multicast channel comprises at least one of video, audio, data and combinational content.

21. **(Original)** A system of Claim 16, further comprising:

means for, prior to receiving the request, provisioning the user's access privileges in an authentication, authorization, and accounting (AAA) server; and

means for accessing the AAA server to authenticate access privileges of the user to the multicast channel.

22. **(Original)** A system of Claim 21, wherein the AAA server comprises a remote authentication dial-in user service (RADIUS) server.

23. **(Original)** A system of Claim 16, wherein the multicast channel comprises an Internet protocol (IP) multicast channel and the request includes an IP address of the user device, further comprising means for determining the user based on the IP address of the device.

24. **(Original)** A system of Claim 16, the means for authenticating access privileges of the user comprising:

means for determining whether the multicast channel comprises a public multicast channel; and

means for successfully authenticating access privileges of the user to the multicast channel in response to at least the multicast channel comprising the public multicast channel.

25. **(Original)** A system of Claim 16, the means for authenticating access privileges of the user comprising:

means for determining whether the user is logged in to a service provider providing the multicast channel; and

means for unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not logged in to the service provider.

26. **(Original)** A system of Claim 16, the means for authenticating access privileges of the user comprising:

means for determining whether the user is logged in to a service including the multicast channel; and

means for unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not logged in to the service including the multicast channel.

27. **(Canceled)**

28. **(Original)** A system of Claim 16, wherein the request is a subscriber join request.

29. **(Original)** A system of Claim 16, the means for authenticating access privileges of the user comprising:

means for determining whether the multicast channel is a controlled access multicast channel; and

means for authenticating access privileges of the user to the multicast channel in response to at least the multicast channel comprising the controlled access multicast channel.

30. **(Original)** A system of Claim 16, further comprising:

means for determining if authentication is enabled at an access router receiving the request;

means for authenticating access privileges of the user to the multicast channel in response to at least determining that authentication is enabled; and

means for allowing the request in response to at least determining authentication is not enabled.

31. **(Currently Amended)** A system for authenticated access to multicast traffic, comprising:

logic encoded in media; and

the logic operable to receive and authenticate a plurality of requests received from a plurality of customer premise systems, at least one of the plurality of requests comprising an Internet group management protocol request for a user to join an IP multicast channel selected from a bundle of IP multicast channels offered for receipt by the user as a multicast package on a subscription basis, to authenticate access privileges of the user to the multicast channel, the logic operable to authenticate access privileges of the user by:

determining whether the user is logged in to a service provider providing a service including the multicast channel;

determining whether the user is logged in to the service including the multicast channel; and

successfully authenticating access privileges of the user to the multicast channel in response to at least the user logged in to the service provider and the service, and to disallow the request in response to at least an unsuccessful authentication.

32. **(Original)** The system of Claim 31, the logic operable to authenticate access privileges of the user by:

determining whether the user has access privileges to the multicast channel based on previously provisioned information for the user; and

unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not having access privileges to the multicast channel.

33. **(Cancelled)**

34. **(Original)** The system of Claim 31, the logic further operable to allow the request in response to at least successful authentication.

35. **(Original)** The system of Claim 31, wherein the multicast channel comprises at least one of video, audio, data and combinational content.

36. **(Original)** The system of Claim 31, the logic further operable to:  
prior to receiving the request, provision the user's access privileges in an authentication, authorization, and accounting (AAA) server; and  
access the AAA server to authenticate access privileges of the user to the multicast channel.

37. **(Original)** The system of Claim 36, wherein the AAA server comprises a remote authentication dial-in user service (RADIUS) server.

38. **(Original)** The system of Claim 31, wherein the multicast channel comprises an Internet protocol (IP) multicast channel and the request includes an IP address of the user device, the logic further operable to determine the user based on the IP address of the device.

39. **(Original)** The system of Claim 31, the logic operable to authenticate access privileges of the user by:  
determining whether the multicast channel comprises a public multicast channel; and  
successfully authenticating access privileges of the user to the multicast channel in response to at least the multicast channel comprising the public multicast channel.

40. **(Original)** The system of Claim 31, the logic operable to authenticate access privileges of the user by:  
determining whether the user is logged in to a service provider providing the multicast channel; and  
unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not logged in to the service provider.

41. **(Original)** The system of Claim 31, the logic operable to authenticate access privileges of the user by:

determining whether the user is logged in to a service including the multicast channel; and

unsuccessfully authenticating access privileges of the user to the multicast channel in response to at least the user not logged in to the service including the multicast channel.

42. **(Canceled)**

43. **(Original)** The system of Claim 31, wherein the request is a subscriber join request.

44. **(Original)** The system of Claim 31, the logic operable to authenticate access privileges of the user by:

determining whether the multicast channel is a controlled access multicast channel; and

authenticating access privileges of the user to the multicast channel in response to at least the multicast channel comprising the controlled access multicast channel.

45. **(Original)** The system of Claim 31, the logic further operable to:  
determine if authentication is enabled at an access router receiving the request;  
authenticate access privileges of the user to the multicast channel in response to at least determining that authentication is enabled; and  
allow the request in response to at least determining authentication is not enabled.

46. **(Currently Amended)** A method for providing premium content services over a network using Internet protocol (IP) multicast channels, comprising:

provisioning user access privileges to an IP multicast channel providing premium content, the premium content including at least one of video, audio and data;

authenticating access privileges of a user to the IP multicast channel upon receiving an Internet group management protocol request at an access network router operable to authenticate a plurality of requests received from a plurality of customer premise systems, the received request identifying a user requesting to join an IP multicast channel to receive the premium video content, the IP multicast channel selected from a bundle of IP multicast channels offered for receipt by the user as a multicast package on a subscription basis, **wherein authenticating access privileges of the user comprises:**

**determining whether the user is logged in to a service provider providing a service including the multicast channel;**

**determining whether the user is logged in to the service including the multicast channel; and**

**successfully authenticating access privileges of the user to the multicast channel in response to at least the user logged in to the service provider and the service;**  
and

disallowing the request in response to unsuccessful authentication.

47. **(Previously Presented)** A method for authenticated access to multicast traffic, comprising:

receiving an Internet group management protocol request at an access network router operable to authenticate a plurality of requests received from a plurality of customer premise systems, the received request identifying a user requesting to join an Internet protocol (IP) multicast channel;

authenticating access privileges of the user to the IP multicast channel by at least one of:

determining whether the IP multicast channel is a public multicast channel;

determining whether the user is logged in to a service provider providing a service including the IP multicast channel;

determining whether the user is logged in to the service including the IP multicast channel;

successfully authenticating access privileges of the user to the IP multicast channel in response to at least one of determining the multicast channel is a public multicast channel and determining the user is logged in to the service provider and the service;

unsuccessfully authenticating access privileges of the user to the IP multicast channel in response to at least one of determining the user is not logged in to the service provider and determining the user is not logged in to the service;

terminating the request in response to at least an unsuccessful authentication; and processing the request in response to at least a successful authentication.

48. **(Currently Amended)** A method for authenticated access to multicast traffic, comprising:

receiving an Internet group management protocol request at an access network router operable to authenticate a plurality of requests received from a plurality of customer premise systems, the received request identifying a user requesting to join an IP multicast channel, the IP multicast channel selected from a bundle of IP multicast channels offered for receipt by the user as a multicast package on a subscription basis;

authenticating access privileges of the user to the multicast channel, wherein authenticating access privileges of the user comprises:

determining whether the user is logged in to a service provider providing a service including the multicast channel;

determining whether the user is logged in to the service including the multicast channel; and

successfully authenticating access privileges of the user to the multicast channel in response to at least the user logged in to the service provider and the service;

replicating multicast channel, at the access network router, in response to at least a successful authentication; and

transmitting the replicated multicast traffic to a customer premise system associated with the user.

49. **(Currently Amended)** A method for authenticated access to multicast traffic, comprising:

receiving an Internet group management protocol request at an access network router operable to authenticate a plurality of requests received from a plurality of customer premise systems, the received request identifying a user requesting to join a selected IP multicast channel;

authenticating access privileges of the user to the multicast channel by determining if the selected IP multicast channel is within a bundle of IP multicast channels offered for receipt by the user as a multicast package on a subscription basis, wherein authenticating access privileges of the user comprises:

determining whether the user is logged in to a service provider providing a service including the multicast channel;

determining whether the user is logged in to the service including the multicast channel; and

successfully authenticating access privileges of the user to the multicast channel in response to at least the user logged in to the service provider and the service;  
and

disallowing the request in response to determining that the selected IP multicast channel is not within the bundle of IP multicast channels.